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10/015,404	12/12/2001	Takashi Ito	S004-4479	4066

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EXAMINER

EDWARDS, ANTHONY Q

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/015,404	Applicant(s) ITO ET AL.	
	Examiner Anthony Q. Edwards	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on September 8 & 15, 2003.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-7, 9, 10, 12, 13 and 16-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-7, 9, 10, 12, 13 and 16-20 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 7, 9, 12, 13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,260,915 to Houlihan in view of U.S. Patent No. 5,569,879 to Gloton et al. Referring to claim 1, Houlihan discloses an arm wearable communication device (10). The device comprises a case (20b), a wireless communication circuit contained in the device (see U.S. Patent No. 4,847,818 to Olsen, which is incorporated by reference in Houlihan), a wearable body (20a, 20c) pivotally mounted to the case (20b) to enable wearing of the communication device on a user's arm (see Figs. 1 and 2), a sound unit (52) provided in the wearable body (20c), and an antenna (13, 14) disposed between the sound unit (52) and the wireless communication circuit and which is provided in the wearable body (see col. 3, lines 30-33 of Olsen for the disclosure an antenna provided in the wearable body disposed between the sound unit and the wireless circuitry).

Houlihan does not specifically disclose the antenna (13, 14) as a "chip" antenna. Gloton et al. disclose providing a dielectric chip in an electronic communication device, such as a smart card, to receive and/or send signals as an electromagnetic antenna. See column 7, lines 30-35 and the Abstract. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the arm wearable communication device of Houlihan to

include a chip-type antenna, as taught by Gloton et al., to reduce the thickness and weight of the wearable communication device of Houlihan without hindering the signal reception of the telephone.

Referring to claim 3, Houlihan in view of Gloton et al. disclose an arm wearable communication device (10), wherein the wearable body (20a, 20c) has a curved part having a curvature, which is smaller than a curvature of a part of the user's arm when the curved part of the wearable body is held to the user's arm, and the chip antenna is provided in the curved part. See FIG. 2 and the corresponding specification.

Referring to claims 5 and 7, Houlihan in view of Gloton et al. disclose the wearable communication device, including a dielectric chip antenna comprising a substrate formed of a mixture of a high dielectric material and a resin, and a conductive foil pattern formed on the substrate. See Figs. 6-9 and the corresponding specification of Gloton et al.

Referring to claim 9, Houlihan in view of Gloton et al. disclose an arm wearable communication device, wherein the body (20a, 20cc) comprises a wrist strap. See Figs. 1 and 2 of Houlihan.

Referring to claim 12, Houlihan in view of Gloton et al. disclose an arm wearable communication device, further comprising a display (42) and operating buttons (44) for controlling the wireless communication circuit provided in a front surface of the case. See Figs. 1 and 2 of Houlihan.

Referring to claim 13, Houlihan in view of Gloton et al. disclose an arm wearable communication device, wherein the wearable body has a pair of substantially C-shaped members at first ends of the opposite sides of the case (see FIG. 2), and wherein the chip antenna

comprises a chip antenna contained in each C-shaped member. See Olsen, which is incorporated by reference in Houlihan, for antenna contained in opposite sides of the case.

Referring to claim 16, Houlihan in view of Gloton et al. disclose an arm wearable communication device, wherein the wireless communication circuit comprises a telephone. See column 1, lines 20-25 of Houlihan.

Referring to claim 17, Houlihan in view of Gloton et al. disclose an arm wearable communication device, wherein a portion of the wearable body (20a, 20c) in which the chip antenna is provided does not have a coating formed thereon (i.e., opposite side of 22, shown in Fig. 2) that would shield reception of a signal in the vicinity of the chip antenna.

Referring to claims 18-20, the arm wearable communication device of Houlihan in view of Gloton et al. includes a coating (22), which does not shield reception of a signal in the vicinity of the chip antenna. See column 3, lines 15-19. Although Houlihan in view of Gloton et al. does not teach the coating formed of ceramic or acrylic glass, examiner takes Official Notice that such construction is well known and conventional in the art of arm wearable communication devices. It would have obvious to one of ordinary skill in the art at the time the invention was made to include to provide a coating of ceramic material or acrylic glass the arm wearable communication device of Houlihan in view of Gloton et al. to provide a scratch resistant outer cover thereto.

Claims 2, 4, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houlihan in view of Gloton et al., and further in view of U.S. Patent No. 5,943,020 to Liebendoerfer et al. Referring to claim 2, Houlihan, as modified, discloses all the claimed elements, except for the communication device adapted to compare the reception states of signals

that are respectively obtained from chip antennae provided in a pair of bodies attached to opposite sides of the case. Liebendoerfer et al. disclose an antenna for use in a dielectric block of a radiotelephone (see column 6, lines 47-49). Comparing reception states, as claimed, is equivalent to receiving two adjacent frequencies (i.e., dual frequency mode), which is also disclosed by Liebendoerfer et al. (see column 6, lines 51-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the wearable communication device of Houlihan to include a pair of antennae, each provided in the wearable body portions and adapted to compare reception states of signals, as taught by Liebendoerfer et al., to provide dual frequency mode reception.

Referring to claim 4, Houlihan in view of Gloton et al., and further in view of Liebendoerfer et al. disclose an arm wearable communication device, wherein the wearable body has a curved part having a curvature which is smaller than a curvature of a part of the user's arm when the curved part of the wearable body is held to the user's arm, and the antenna is provided in the curved part (see Fig. 2 of Houlihan).

Referring to claim 6, Houlihan in view of Gloton et al., and further in view of Liebendoerfer et al. disclose an arm wearable communication device, including a dielectric chip antenna comprising a substrate formed of a mixture of a high dielectric material and a resin, and a conductive foil pattern formed on the substrate. See Figs. 6-9 and the corresponding specification of Gloton et al.

Referring to claim 10, Houlihan in view of Gloton et al., and further in view of Liebendoerfer et al., wherein the wearable bodies (20a, 20c) connectable parts (i.e., at 30a and 30b) of a wrist strap. See Figs. 2-4 of Houlihan.

Response to Arguments

Applicant's arguments filed September 8, 2003 have been fully considered but they are not persuasive. Applicant is directed to the above rejection regarding amended claim 1.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 703-605-4214. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1782.

aqe
November 4, 2003


DARREN SCHUBERG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800